CONNECTICUT RIVER WATERSHED COUNCIL
The River Connects Us
15 Bank Row, Greenfield, MA 01301

February 9, 2009

Courtney Feeley Karp
Massachusetts Department of Energy Resources
100 Cambridge Street, Suite 1020
Boston, MA 02114

Subject: **225 CMR 14.00 – Renewable Energy Portfolio Standard – RPS I**
225 CMR 15.00 – Renewable Energy Portfolio Standard – RPS II

Dear Ms. Karp,

I am submitting comments on the Renewable Energy Portfolio Standards on behalf of the Connecticut River Watershed Council (CRWC). CRWC is the principal nonprofit environmental advocate for protection, restoration, and sustainable use of the Connecticut River and its watershed. The Massachusetts portion of the Connecticut River watershed makes up about a third of the Commonwealth of Massachusetts. We have many existing and proposed renewable energy projects in the watershed, and these regulations will affect the rivers and natural resources in our watershed.

General Comments:

The Connecticut River watershed has over 1,000 dams on the mainstem river and in its tributaries. While some dams are actively used for hydropower, many are no longer in use. There is much ecological value to having connectivity between the Connecticut River and habitat upstream in tributaries. Migratory fish and resident fish need to be able to move and find appropriate habitat. While there is an understandable need for increasing our renewable power output, our hope with these regulations is that we would not see additional detrimental impacts to fish and wildlife habitat. If anything, we would like to see progress on removing some of the smaller dams on tributaries that are deemed unnecessary.

These regulations give consideration to lifecycle greenhouse gas emissions, which CRWC applauds. We think one thing missing from the regulations is the consideration of another type of lifecycle consumption: the use of water. For those generation units that will use water for cooling, careful consideration should be given to how much water is being lost to evaporation and therefore being permanently taken from the Commonwealth's water bodies. The long term use of such a valuable resource as water should not be squandered.

CRWC strongly encourages the Commonwealth to carefully consider the environmental trade-offs before encouraging the creation of biomass power plants. The public should also be fully informed of these environmental costs. For example, trees provide a good heat sink against global warming. Trees, wood debris, and decaying organic matter also contribute valuable ecological services: they create fish habitat, they provide terrestrial habitat, they contribute to the food web for fish and animals, and they help minimize erosion along river banks. Some stipulation in these regulations should be added such that biomass fuel is certified to be sustainably harvested, with standards for what constitutes sustainably harvested defined.

Comments on 225 CMR 14.00 – Renewable Energy Portfolio Standards – RPS I

14.02 Definitions

Eligible Biomass Fuel:

The definition of eligible biomass fuel should not include wood pallets. Wood pallets themselves are not "renewable," have been associated with bringing invasive insects into this country, and contain metal staples or nails. Some wood pallets may have been treated with flame retardants, insecticides, or fungicides. Emissions from wood pallets are not the same as emissions from wood chips. Chemicals in emissions can affect water quality both near and far away from any power plant, as we have seen in the case of the mercury problem.

Biomass fuel from foreign countries that are cutting down rainforests in order to grow corn for biomass or biodiesel should not fit within this definition.

Eligible Liquid Biofuel:

Biofuel from foreign countries that are cutting down rainforests to create biofuel, or otherwise needlessly harming their natural resources, should not fit within this definition.

Impacted Watershed:

Suggested re-wording of the definition: "All water bodies and land areas hydrologically connected to a water body from which flow is directed to or from ~~impounded by~~ a hydroelectric facility, either located upstream or downstream, which may experience any alteration of their physical, biological, or ecological characteristics as a result of the operation or increased capacity expansion of a Generation Unit." There are sometimes land areas, such as river banks, that are impacted by hydropower operations that should be part of this definition. Not all hydroelectric facilities in Massachusetts are specifically impoundments (unit located in Quabbin to Wachusett tunnel). Relevant hydroelectric agencies should be the ones determining the impacted watershed, not the applicant.

Renewable Generation Unit:

Waste-to-energy should not be considered renewable energy. MassDEP's 2006 Solid Waste Master Plan maintains a goal of 75% waste reduction by 2010. CRWC is concerned that giving renewable energy credits to waste-to-energy plants would have the effect of encouraging our in-state waste levels to remain high, because waste-to-energy plants require a stable fuel source. This would be contrary to our goals of minimizing as much waste as possible. It could also have the unintended consequence of encouraging the Commonwealth to become a state that depends on importing municipal solid waste. CRWC believes that either effect would not protect the health and wellbeing of our residents and that of our aquatic resources.

14.05(1)(a)(6)(b): The definition of hydroelectric facility seems to preclude all pumped storage facilities in these Standards. However, the wording in this section of the regulations is confusing in that it seems to preclude only those pumped storage units constructed after December 31, 1997. This should be clarified. There are two pumped storage facilities in the Massachusetts section of the Connecticut River watershed. It is our opinion that no pumped storage facility or units or unit upgrades associated therein should be given renewable energy credits because pumped storage requires the use of more power than it produces and it often relies on the use of non-renewable energy for the power that it consumes.

14.05(1)(a)(6)(c). Because marine or hydrokinetic energy is not considered "hydroelectric" in this definition, facilities using this type of energy are not subject to the same standards to address water quality standards, fish habitat protection, and mitigation opportunities in the impacted watershed or water body, as laid out in 14.05(1)(a)(6)(d). We think it very important that any marine or hydrokinetic energy

source, as defined in 14.02, be subject to requirements and review by Relevant Hydroelectric Agencies (and the public) such that the projects are not a detriment to aquatic habitat, recreational use, water quality, and navigation.

14.05(1)(a)(6)(d). We think it important that recreational use and navigation be included in the list of site-specific standards addressed in this section of the regulations.

14.05(1)(a)(6)(d)(ii) and 14.05(1)(a)(6)(f). The LIHI Certification process allows for public input. The approval and comment of hydroelectric projects under this part of the regulation should also allow for public notice and comment. We suggest that the regulations be re-written to include notice in the *Environmental Monitor* with an established comment period from the public. Often, residents and organizations may have valuable local knowledge of a hydroelectric facility or an affected watershed that the Relevant Hydroelectric Agencies may not have.

14.05(3). There should be a limit to the amount or percentage of blended fuel allowed under this provision. A biomass plant that burns mostly fossil fuels should not be getting the same renewable energy credits as those that burn 100% biofuel.

Comments on 225 CMR 15.00 – Renewable Energy Portfolio Standards – RPS II

15.02 Definitions

Eligible Biomass Fuel:

The definition of eligible biomass fuel should not include wood pallets. Wood pallets themselves are not "renewable," have been associated with bringing invasive insects into this country, and contain metal staples or nails. Some wood pallets may have been treated with flame retardants, insecticides, or fungicides. Emissions from wood pallets are not the same as emissions from wood chips. Chemicals in emissions can affect water quality both near and far away from any power plant, as we have seen in the case of the mercury problem.

Biomass fuel from foreign countries that are cutting down rainforests in order to grow corn for biomass or biodiesel should not fit within this definition.

Eligible Liquid Biofuel:

Biofuel from foreign countries that are cutting down rainforests to create biofuel, or otherwise unnecessarily harming their natural resources, should not fit within this definition.

Eligible RPS Class II Renewable Fuel:

Municipal solid waste (MSW) should not be considered a renewable fuel. MassDEP's 2006 Solid Waste Master Plan maintains a goal of 75% waste reduction by 2010. There are those who think the goal should be zero waste. CRWC is concerned that considering MSW as a renewable fuel would have the effect of encouraging our in-state waste levels to remain high, because waste-to-energy plants require a stable fuel source. This would be contrary to our goals of minimizing as much waste as possible. It could also have the unintended consequence of encouraging the Commonwealth to become a state that depends on importing municipal solid waste. CRWC believes that either effect would not protect the health and wellbeing of our residents and that of our aquatic resources.

Hydroelectric Energy:

The end of the definition does not have "(i.e., a so-called 'pumped storage facility')" as there is in 225 CMR 14.02. Should they be the same?

Impacted Watershed:

Suggested re-wording of the definition: "All water bodies and land areas hydrologically connected to a water body from which flow is directed to or from ~~impounded by~~ a hydroelectric facility, either located upstream or downstream, which may experience any alteration of their physical, biological, or ecological characteristics as a result of the operation or increased capacity expansion of a Generation Unit." There are sometimes land areas, such as river banks, that are impacted by hydropower operations that should be part of this definition. Not all hydroelectric facilities in Massachusetts are specifically impoundments (unit located in Quabbin to Wachusett tunnel). Relevant hydroelectric agencies should be the ones determining the impacted watershed, not the applicant.

LIHI:

We aren't sure why this definition has been dropped, since the acronym is then used with no definition in 225 CMR 15.05.

15.05(1)(a)(6)(b): The definition of hydroelectric facility seems to preclude all pumped storage facilities in these Standards. However, the wording in this section of the regulations is confusing in that it seems to preclude only those pumped storage units constructed after December 31, 1997. This should be clarified. There are two pumped storage facilities in the Massachusetts section of the Connecticut River watershed. It is our opinion that no pumped storage facility or units or unit upgrades associated therein should be given renewable energy credits because pumped storage requires the use of more power than it produces and it often relies on the use of non-renewable energy for the power that it consumes.

15.05(1)(a)(6)(c). Because marine or hydrokinetic energy is not considered "hydroelectric" in this definition, facilities using this type of energy are not subject to the same standards to address water quality standards, fish habitat protection, and mitigation opportunities in the impacted watershed or water body, as laid out in 15.05(1)(a)(6)(d). We think it very important that any marine or hydrokinetic energy source, as defined in 14.02, be subject to requirements and review by Relevant Hydroelectric Agencies (not to mention, the public) such that the projects are not a detriment to aquatic habitat, recreational use, water quality, and navigation.

15.05(1)(a)(6)(d). We think it important that recreational use and navigation be included in the list of site-specific standards addressed in this section of the regulations.

15.05(1)(a)(6)(d)(ii) and 14.05(1)(a)(6)(f). The LIHI Certification process allows for public input. The approval and comment of hydroelectric projects under this part of the regulation should also allow for public notice and comment. We suggest that the regulations be re-written to include notice in the *Environmental Monitor* with an established comment period from the public. Often, residents and organizations may have valuable local knowledge of a hydroelectric facility or an affected watershed that the Relevant Hydroelectric Agencies may not have.

15.05(1)(a)(7). We are glad that this section of the regulations requires waste to energy facilities participate in an authorized recycling program, but we stand by our earlier statement that MSW should not be considered a renewable fuel.

15.05(2). There should be a limit to the amount or percentage of blended fuel allowed under this provision. A biomass plant that burns mostly fossil fuels should not be getting the same renewable energy credits as those that burn 100% biofuel.

We thank the Department of Energy Resources for the opportunity to comment on these regulations.

Sincerely,

Andrea F. Donlon, M.S.
River Steward